



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,166	01/15/2002	Erich Fuchs	Mo-6608/LeA 34,892	1859

157 7590 10/30/2003

BAYER POLYMERS LLC
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 10/30/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,166

Applicant(s)

FUCHS, ERICH

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9, 10 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This office action follows a response filed on August 20, 2003. The certified translation of the priority document DE 101 02 047.3, received on September 8, 2003, has been entered into the record.

Election/Restrictions

1. Applicant's election with traverse of claims 1-8 and 11 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that a full search would not impose a serious burden to the examiner. This is not found persuasive because the three inventions were shown adequately to be distinct inventions (see paragraphs 2-4). As indicated previously, restriction was made because these inventions have acquired a separate status in the art as shown by their different classification and because of their recognized divergent subject matter.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1713

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,985,392 to Hert *et al.* in view of EP 0 933 381 to Fujii *et al.* for the same reasons set forth in paragraph 12 of the previous office action (Paper No. 5).

Briefly, Hert *et al.* teaches a rubber composition comprising carboxylated nitrile rubber, 2 pw of silane, zinc acrylate, silica and peroxide to effect crosslinking. The inventors also use ZnO as a vulcanization accelerant, but here is no mention of liquid acrylates.

Fujii *et al.*, however, explains that where peroxides are used to cure carboxylated nitrile rubber, polyfunctional compounds such as ethylene glycol dimethacrylate, trimethylolpropane trimethacrylate, and polyethylene glycol dimethacrylate are crosslinking agents of choice over ZnO. Therefore, the skilled artisan, having read both references, would have found it obvious to use polyfunctional crosslinking co-agents in the composition of Hert *et al.*, and the skilled artisan would have expected such an embodiment to work. One would be motivated to modify the art because Fujii *et al.* teaches and suggests that said polyfunctional crosslinking agents are to be used with peroxide crosslinking agents rather than ZnO.

Response to Arguments

5. Applicants traverse the rejection of claims 1-8 and 11 under 35 U.S.C. 103(a) as being unpatentable over Hert *et al.* ("Hert") in view of Fujii *et al.* ("Fujii") Applicant's arguments have been considered fully, but they are not persuasive. Contrary to Applicant's view, a *prima facie* case of obviousness was made according to the guidelines set forth in *In re Vaeck*.

First, there is strong suggestion, and hence, strong motivation to use liquid acrylates described in Fujii in the composition of Hert. As elucidated previously, Fujii teaches use of liquid acrylates when peroxides are used as crosslinking agent. In contrast, ZnO is reserved for compositions cured with sulfur. Following this teaching (suggestion), the skilled artisan would glean that Hert's use of peroxide crosslinking agent with ZnO is not an effective combination. Therefore, one would be motivated to substitute Hert's ZnO with a liquid acrylate instead in order to achieve effective crosslinking. The motivation to combine references flows naturally and logically from the teachings of the prior art.

Secondly, a reasonable expectation of success does exist because Fujii teaches use of liquid acrylates with peroxide. The skilled artisan did not need despair that Fujii's liquid acrylates are incompatible with the Hert's composition both references relate to methods of curing carboxylated nitrile rubber.

Thirdly, the combined prior art, indeed, teaches all claim limitations. No element of the rejection was culled from an undisclosed source.

Applicants also submit that the Shore Hardness D of the compositions of the present invention constitute unexpected results since they are much higher than those of the materials of the prior art. The examiner disagrees with this notion because no scientific or legal conclusion can be drawn from a comparison materials so variegated in composition. Whereas the base resin shown in Applicant's Table 2 is hydrogenated carboxylated nitrile rubber, Hert's Example 4 uses ordinary carboxylated nitrile rubber. One having skill in the art would appreciate that the degree of hydrogenation limits the extent of crosslinking in, and ultimately, the Shore Hardness of the rubber material. Coupled with the fact that auxiliary agents in the compositions in question differ in identity and amount, one sees that no back-to-back comparison of products exists. As a result, that one material is harder than the other bears no significance in the Applicant's argument.

In view of the discussion above, the rejection of record has not been withdrawn.

6. Applicants traverse the rejection of claims 1-8 and 11 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,538,071 to Fuchs in view of Hert *et al.* In this case, the Fuchs reference does not qualify as prior art for *obviousness* type rejections because it discloses the same assignee and same inventive entity. Consequently, the rejection has been withdrawn.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

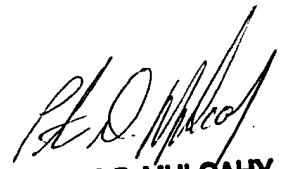
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

ral

October 23, 2003


PETER D. MULCAHY
PRIMARY EXAMINER